ORDINANCE 1606

AN ORDINANCE OF THE CITY OF NORTH BEND, WASHINGTON, RELATING TO FLOODPLAIN MANAGEMENT; AMENDING NORTH BEND MUNICIPAL CODE (NBMC) SECTIONS 14.05.090, 14.05.165, 14.05.200, AND 14.08.040 AND CHAPTER 14.12 NBMC; PROVIDING FOR SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

WHEREAS, the City of North Bend ("City") participates in the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency (FEMA) and has adopted North Bend Municipal Code Chapter 14.12, *Floodplain Management*, in compliance with FEMA requirements; and

WHEREAS, on November 15, 2015, the Washington State Department of Ecology conducted a Community Assistance Visit (CAV) at the City, a periodic activity that is required as part of participation in the NFIP, to evaluate the City's floodplain management program; and

WHEREAS, the CAV identified deficiencies in the City's floodplain management regulations, which the City must address to ensure compliance with the minimum NFIP criteria; and

WHEREAS, on July 19, 2016, the City Council adopted Ordinance No. 1594 to correct the deficiencies identified during the 2015 CAV; and

WHEREAS, in the process of preparing and adopting Ordinance 1594, City staff identified certain provisions of the City's floodplain management regulations that warranted additional revision ("Additional Amendments"), but were unable to address the Additional Amendments given the time constraint imposed under the CAV for complying with the NFIP criteria; and

WHEREAS, the Additional Amendments, which include revisions to NBMC 14.12 (Floodplain Management), and minor associated amendments to NBMC 14.05 (Critical Areas Administration, General Provisions and Definitions) and 14.08 (Streams), are intended to standardize, clarify and simplify the requirements of the floodplain management regulations, harmonize definitions, and streamline the administration and enforcement by staff of these provisions; and

WHEREAS, the draft amendments were forwarded to Commerce Growth Management Services on August 25, 2016, in accordance with RCW 36.70A.106; and

WHEREAS, a State Environmental Policy Act Determination of Non-Significance (SEPA DNS) was issued on the draft amendments on September 7, 2016, and no comments were received on the SEPA DNS; and

WHEREAS, the Planning Commission reviewed the draft amendments at its September 8, September 22 and October 13, 2016 meetings and recommended approval of the draft amendments on October 13, 2016; and

WHEREAS, the Planning Commission held a public hearing on the draft amendments at its September 22, 2016 meeting and received no comment on the amendments; and

WHEREAS, the City Council finds that the draft amendments address and are consistent with the requirements of Chapter 36.70A RCW, the Growth Management Act; and

WHEREAS, the City Council finds that the City followed the procedural requirements of Chapter 20.08 NBMC to notify and advertise amendments of the Code to the public and interested agencies, and finds that both the Planning Commission and the City Council considered all written and verbal comments received during their respective public participation processes;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF NORTH BEND, WASHINGTON, DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. NBMC 14.05.090 (Nonconforming uses and structures), Amended: North Bend Municipal Code Section 14.05.090 (Nonconforming uses and structures) is hereby amended to read as follows:

A. Purpose. This section establishes the terms and conditions for continuing nonconforming uses, structures and lots near or in critical areas, which are lawfully established prior to the effective date of the ordinance codified in this title. For those areas outside critical area regulation, Chapter 18.30 NBMC applies.

B. Establishing Status.

1. A legally established nonconforming lot, use, or structure may be continued, transferred or conveyed and/or used as if conforming.

2. The burden of establishing that any nonconforming lot, use, or structure lawfully existed as of the effective date of the ordinance codified in this chapter shall, in all cases, rest with the owner and not with the city.

3. A nonconforming lot, use, or structure may be deemed legally nonconforming by providing documentation that the use in question occurred prior to the CAO in 1993 or was permitted under the CAO regulations from 1993 to 2005, from one of the following:

a. Local agency permit;

b. Orthophoto, aerial photo or planimetric mapping recognized as legitimate by the agency; or

c. Tax record.

C. Maintenance and Repair of Nonconforming Structures. Normal maintenance and incidental repair of legal nonconforming structures shall be permitted; provided, that:

1. The maintenance shall not increase the degree of nonconformity; and

2. The cumulative cost of such maintenance or repair within any 180-day period shall not exceed 50 percent of the assessed valuation of such building, structure, or land (as applicable) at the time such maintenance is completed.

D. Reconstruction or Replacement. Reconstruction, restoration, remodeling or repair of a legal nonconforming structure damaged by fire, flood, earthquake, falling trees or limbs, or other disasters, shall be permitted except where prohibited or conditioned in NBMC14.12.170 and 14.12.180; provided, that such reconstruction shall not result in the expansion of the nonconforming structure into or towards the critical area or its buffer, or in a manner that increases the potential impact to the critical area or risk of harm to public safety. Legal nonconforming status will be lost if a building permit is not secured within one year of the date damage is incurred. See applicable critical area performance standards, such as NBMC 14.12.200 for structures in a floodway.

E. Expansion of Nonconforming Use or Structure. Within a critical area or its buffer, no legal nonconforming use or structure may be expanded, enlarged, extended, or intensified in any way (including extension of hours of operation) unless such modification is in full compliance with this title or the terms and conditions of approved permits pursuant to this title, or is allowed as provided below, or is considered an exception as provided in NBMC 14.05.085. Approved expansions must be consistent with standards of the zoning code in which such building, structure, or land use lies and with limitations set forth in NBMC 14.12.170 and 14.12.180. In no case shall any prohibited uses as designated under NBMC 18.10.030 be permitted to enlarge or expand. The following legal nonconforming expansions or uses are allowed:

1. Vegetation management, including landscaping or gardening revisions on lawfully established and maintained portions of a critical area or its buffer.

2. Fences, decks, and accessory structures that are exempt from a building permit can be established or expanded on lawfully established and maintained portions of a critical area or its buffer without demonstrating full compliance with this title.

3. Building modification or additions that are not considered substantial improvements.

4. Single-family residential building permits are exempt from the requirements of the critical area regulations when the development proposal involves any of the above activities and:

a. Structural modifications to or replacement of an existing single-family residential structure with a new residential structure where construction and associated disturbance does not increase the footprint of any existing structure; and

b. The structure is not located closer to the critical area; and

c. The existing impervious surface within the critical area or buffer is not expanded.

F. Discontinuance of Nonconforming Use or Structure. All legal nonconforming uses shall be encouraged to convert to a conforming use whenever possible. Conformance shall be required when:

1. A change of use is proposed;

2. The use is terminated or discontinued for more than one year, or the structure(s) that houses the use is vacated for more than one year; or

3. The structure(s) or activity that occur on the land in which the use is conducted is proposed for relocation.

Section 2. NBMC 14.05.165 (Mitigation Plans), Amended: North Bend Municipal Code Section 14.05.165 (Mitigation plans) is hereby amended to read as follows:

A. Mitigation or alterations to critical areas shall achieve equivalent or greater biological functions and shall include mitigation for adverse impacts upstream and downstream of the development proposal site. Mitigation sites for wetlands, streams, and fish and wildlife habitat conservation areas shall be located to achieve contiguous habitat corridors in accordance with a mitigation plan that is part of an approved critical area report to minimize the isolating effects of development on habitat areas. Mitigation of aquatic habitat shall be located within the same aquatic ecosystem as the area disturbed. Mitigation for floodplain impacts shall be located in the same drainage sub-basin as the area disturbed. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis.

B. The scope and content of a mitigation plan shall be decided on a case-by-case basis; as the impacts to the critical area increase, the mitigation measures to offset these impacts will increase in number and complexity. The city of North Bend shall determine during the review of the requested studies which of the components listed in subsection C of this section shall be required as part of the mitigation plan. Key factors in this determination shall be the size and nature of the development proposal, the nature of the impacted critical areas, and the degree of cumulative impacts on the critical area from other development proposals.

C. At a minimum, the following components shall be included in a complete mitigation plan:

1. Baseline Information. Provide existing conditions information for both the impacted critical areas and the proposed mitigation site as described in NBMC 14.05.145(C) and provide additional report requirements for each critical area as required by NBMC 14.06.060, 14.09.090, 14.11.090 and 14.12.220.

2. Environmental Goals and Objectives. The mitigation plan shall include a written report identifying environmental goals and objectives of the compensation proposed and including:

a. A description of the anticipated impacts to the critical areas, the mitigating actions proposed, and the purposes of the compensation measures, including the site selection criteria, identification of compensation goals, identification of resource functions, and dates for beginning and completing site compensation construction activities. The goals and objectives shall be related to the functions and values of the impacted critical area; and

b. A review of the best available science supporting the proposed mitigation.

3. Performance Standards. The mitigation plan shall include measurable specific criteria for evaluating whether or not the goals and objectives of the mitigation project have been successfully attained and whether or not the requirements of this title have been met. They may include water quality standards, species richness and diversity targets, habitat diversity indices, or other ecological, geological, or hydrological criteria.

4. Detailed Construction Plan. These are the written specifications and descriptions of mitigation technique. This plan should include the proposed construction sequencing, grading and excavation details, erosion and sedimentation control features, a native planting plan, detailed site diagrams, and any other drawings appropriate to show construction techniques or anticipated final outcome.

5. Monitoring and/or Evaluation Program. The mitigation plan shall include a program for monitoring construction of the compensation project and for assessing a completed project, as detailed under NBMC 14.05.170.

6. Contingency Plan. This section identifies potential courses of action, and any corrective measures to be taken when monitoring or evaluation indicates projected performance standards have not been met.

Section 3. NBMC 14.05.200 (Definitions), Amended: North Bend Municipal Code Section 14.05.200 (Definitions) is hereby amended to read as follows:

A. "A" Definitions.

1. "Active fault" means a fault that is considered likely to undergo renewed movement within a period of concern to humans. Faults are commonly considered to be active if the fault has moved one or more times in the last 10,000 years.

2. "Addition" means an extension or increase in floor area or height of a building or structure.

3. "Adjacent" means immediately adjoining (in contact with the boundary of the influence area) or within a distance less than that needed to separate activities from

critical areas to ensure protection of the functions and values of the critical areas. Adjacent shall mean any activity or development located:

a. On-site immediately adjoining a critical area; or

b. A distance equal to or less than the required critical area buffer width and building setback.

4. "Alteration" means any human-induced change in an existing condition of a critical area or its buffer. Alterations include, but are not limited to: grading, filling, dredging, channelizing, clearing (vegetation), applying pesticides, discharging waste, construction, compaction, excavation, modifying for stormwater management, relocating, or other activities that change the existing landform, vegetation, hydrology, wildlife, or habitat value, of critical areas.

5. "Anadromous fish" means fish that spawn in fresh water and mature in the marine environment.

6. "Appeal" means a request for a review of the city director's interpretation of any provision of the critical area regulations or a request for a variance.

7. "Applicant" means a person who files an application for a permit under this chapter and who is either the owner of the land on which that proposed activity would be located, a contract purchaser, or the authorized agent of such a person.

8. "Aquifer recharge area" means an area that, due to the presence of certain soils, geology, and surface water, acts to recharge ground water by percolation.

9. "Area of shallow flooding" means a designated AO or AH zone on the flood insurance rate map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident.

10. "Area of special flood hazard" means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year.

11. "Assessed value" means assessed valuation shall be as established by the King County assessor's office, unless otherwise provided by a market appraisal institute (MAI) appraisal.

B. <u>"B" Definitions</u>.

1. "Base flood" means a flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the "100-year flood." Designated on flood insurance rate maps with the letters A or V.

2. "Base flood elevation" means the water surface elevation of the base flood. It shall be referenced to the North American Vertical Datum of 1988 (NAVD).

3. "Basement" means any area of a building having its floor subgrade (below ground level) on all sides.

4. "Best available science" means current scientific information used in the process to designate, protect, or restore critical areas that is derived from a valid scientific process as defined by WAC 365-195-900 through 365-195-925.

5. "Best management practices" means conservation practices or systems of practice and management measures that:

a. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics, and sediment;

b. Minimize adverse impacts to surface water and ground water flow, circulation patterns, and the chemical, physical, and biological characteristics of wetlands;

c. Protect trees and vegetation designated to be retained during and following site construction; and

d. Provides standards for proper use of chemical herbicides within critical areas.

6. "Buffer" means the zone contiguous with a critical area that is required for the continued maintenance, function, and structural stability of the critical area.

7. "Building setback line (BSBL)" means a line beyond which the foundation of a structure shall not extend.

C. "C" Definitions.

1. "Channel migration zone (CMZ)" means the lateral extent of likely movement along a stream or river during the next 100 years as determined by evidence of active stream channel migration movement over the past 100 years.

2. "City" means the city of North Bend.

3. "Clearing" means the cutting, killing, grubbing, or removing of vegetation or other organic material by physical, mechanical, chemical, or any other similar means.

4. "Compensation project" means actions specifically designed to replace project-induced critical area and buffer losses. Compensation project design elements may include, but are not limited to, land acquisition, planning, construction plans, monitoring, and contingency actions.

5. "Compensatory mitigation" means types of mitigation used to replace project-induced critical area and buffer losses or impacts.

6. "Concentrated animal feeding operation (CAFO)" means the Department of Ecology regulates and permits CAFO's areas where animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period. The CAFO permit does not automatically kick in until a facility has a certain number of nonaquatic animals (i.e., 1,000 cattle or 700 dairy cows). Smaller facilities may also be regulated if they are discharging to a waterbody.

7. "Critical aquifer recharge area (CARA)" means areas designated by WAC 365-190-080(2) that are determined to have critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2).

8. "Critical areas" means any of the following areas or ecosystems: wetlands, critical aquifer recharge areas, streams, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas as defined by the Growth Management Act (RCW 36.70A.170).

9. "Critical facility" means a facility for which even a slight chance of flooding, inundation, or impact from a hazard event might be too great. Critical facilities include, but are not limited to, schools, nursing homes, hospitals, police, fire and emergency installations, and installations that produce, use, or store hazardous materials or hazardous waste.

D. "D" Definitions.

1. "Designated floodway" means the regulatory floodway that has been delineated on the city's flood insurance rate map (FIRM).

2. "Developable area" means a site or portion of a site that may be utilized as the location of development, in accordance with the rules of this chapter.

3. "Development" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, storage of equipment and materials and subdivision of land. For properties within the floodplain, development also includes the removal of more than five percent of the native vegetation on the property, or alteration of natural site characteristics.

4. "Development permit" means any permit issued by the city of North Bend, or other authorized agency, for construction, land use, or the alteration of land.

5. "Director" refers to the community services director for the city of North Bend.

E. "E" Definitions.

1. "Elevation certificate" means the official form (FEMA Form 81-31) used to track development, provide elevation information necessary to ensure compliance

with community floodplain management ordinances, and determine proper insurance premium rate.

2. "Erosion" means the process by which soil particles are mobilized and transported by natural agents such as wind, rain, frost action, or stream flow.

3. "Erosion hazard area" means those areas that, because of natural characteristics including vegetative cover, soil texture, slope gradient, and rainfall patterns, or human-induced changes to such characteristics, are vulnerable to erosion.

F. "F" Definitions.

1. "FEMA – Federal Emergency Management Agency" means the agency that oversees the administration of the National Flood Insurance Program (44 CFR).

2. "Fish and wildlife habitat conservation areas" means areas necessary for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created as designated by WAC 365-190-080(5). These areas include:

a. Areas with which state or federally designated endangered, threatened, and critical species have a primary association;

b. Habitats of local importance, including, but not limited to, areas designated as priority habitat by the Department of Fish and Wildlife;

c. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish and wildlife habitat;

d. Waters of the state, including lakes, rivers, ponds, streams (and their associated wetlands), inland waters, underground waters, salt waters and all other surface water and watercourses within the jurisdiction of the state of Washington;

e. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;

f. State natural area preserves and natural resource conservation areas; and

g. Land essential for preserving connections between habitat blocks and open spaces.

3. "Flood" or "flooding" mean a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters and/or the unusual and rapid accumulation of runoff or surface waters from any source.

4. “Flood hazard area” means any area subject to inundation by the base flood or risk from channel migration including, but not limited to, an aquatic area, wetland, or closed depression.

5. “Flood insurance rate map (FIRM)” means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazard and the risk premium zones applicable to the community (44 CFR Part 59).

6. “Flood insurance study (FIS)” means the official report provided by the Federal Insurance Administration that includes the flood profiles, the FIRM, and the water surface elevation of the base flood (44 CFR Part 59).

7. “Flood protection elevation” means the elevation at which structures and uses regulated by Chapter 14.12 NBMC are required to be elevated or floodproofed.

8. “Floodplain” means any land area susceptible to being inundated by floodwaters from any source.

9. “Floodproofing” means adaptations that ensure a structure is substantially resistant to the passage of water below the flood protection elevation and resists hydrostatic and hydrodynamic loads and effects of buoyancy.

10. “Floodway” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

11. “Floodway Dependent Structure” means structures that are floodway dependent including, but are not limited to, dams, levees and pump stations, stream bank stabilization, boat launches and related recreational structures, bridge piers and abutments, and fisheries enhancement or stream restoration projects.

12. “Formation” means an assemblage of earth materials grouped together into a unit that is convenient for description or mapping.

13. “Formation, confining” means the relatively impermeable formation immediately overlaying a confined aquifer.

14. “Frequently flooded areas” means lands in the floodplain subject to a one percent or greater chance of flooding in any given year and those lands that provide important flood storage, conveyance, and attenuation functions, as determined by the director, in accordance with WAC 365-190-080(3). Classifications of frequently flooded areas include, at a minimum, the 100-year floodplain designations of the Federal Emergency Management Agency (FEMA) and National Flood Insurance Program (NFIP).

15. “Functions” and “values” mean the beneficial roles served by critical areas, including, but not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation,

ground water recharge and discharge, erosion control, and recreation. "Functions" and "values" may be considered independently, with functions being measured indicators such as water quality, hydrologic functions, and habitat functions and values being nonmeasured indicators such as local importance, potential qualities, or recreational benefits.

G. "G" Definitions.

1. "Geologically hazardous areas" means areas that may not be suited to development consistent with public health, safety or environmental standards, because of their susceptibility to erosion, sliding, earthquake, or other geological events as designated by WAC 365-190-080(4). Types of geologically hazardous areas include erosion, landslide, seismic, volcanic hazards, and mine.

2. "Grading" means any excavation, clearing, filling, leveling, or contouring of the ground surface by human or mechanical means.

H. "H" Definitions.

1. "Hazard areas" means areas designated as frequently flooded or geologically hazardous areas due to potential for erosion, landslide, seismic activity, mine collapse, or other geologically hazardous conditions, including steep slopes.

2. "Hazardous substance(s)" means:

a. A hazardous substance as defined by Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any substance designated pursuant to Section 311(b)(2)(A) of the Clean Water Act (CWA); any hazardous waste having the characteristics identified under or listed pursuant to Section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress); any toxic pollutant listed under Section 307(a) of the CWA; or any imminently hazardous chemical substance or mixture with respect to which the United States Environmental Protection Agency has taken action pursuant to Section 7 of the Toxic Substances Control Act;

b. Hazardous substances that include any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-090, 173-303-102, or 173-303-103.

3. "High-intensity land use" means land uses consisting of commercial, urban, industrial, institutional, retail, residential with more than one unit per acre, agricultural (dairies, nurseries, raising and harvesting crops, requiring annual tilling, raising and maintaining animals), high-intensity recreation (golf courses, ball fields), and hobby farms.

4. “Heavy equipment” means such construction machinery as backhoes, treaded tractors, dump trucks, and front-end loaders.

5. “Hydraulic project approval (HPA)” means a permit issued by the state of Washington’s Department of Fish and Wildlife for modification to waters of the state in accordance with Chapter 75.20 RCW.

I. “I” Definitions.

1. “Impervious surface area” means any nonvertical surface artificially covered or hardened so as to prevent or impede the percolation of water into the soil mantle including, but not limited to, roof tops, swimming pools, paved or graveled roads and walkways or parking areas, and excluding landscaping and surface water retention/detention facilities.

2. “Isolated wetland” means those wetlands and their buffers that are outside of the following critical areas and their buffers, where applicable: 100-year floodplain, lake, river, stream, or wetland. Isolated wetlands have no contiguous hydric soil or hydrophytic vegetation between the wetland and any surface water.

J. “J” Definitions.

Reserved.

K. “K” Definitions.

Reserved.

L. “L” Definitions.

1. “Lake” means an area permanently inundated by water in excess of two meters deep and greater than 20 acres in size measured at the ordinary high water mark.

2. “Landslide” means episodic down slope movement of a mass of soil or rock that includes, but is not limited to, rock falls, slumps, mudflows, and earth flows.

3. “Landslide hazard areas” means areas that are potentially subject to risk of mass movement due to a combination of geologic, topographic, and hydrologic factors.

4. “Low-intensity land use” includes, but is not limited to, forestry and open space (such as passive recreation and natural resources preservation).

5. “Lowest floor” means the lowest floor of the lowest enclosed area (including basement) of a structure. An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area, is not considered a building’s lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design

requirements of these critical areas regulations found in NBMC 14.12.120 (i.e., provided there are adequate flood ventilation openings).

M. "M" Definitions.

1. "Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle."

2. "Mobile home park, "manufactured housing community, or "manufactured/mobile home community " means any real property which is rented or held out for rent to others for the placement of two or more mobile homes, manufactured homes, or park models for the primary purpose of income, except where such real property is rented or held out for rent for seasonal recreational purpose only and is not intended for year-round occupancy.

3. "Minor utility project" means the placement of a utility pole, street sign, anchor, vault, or other small component of a utility facility, where the disturbance of an area is less than 75 square feet.

4. "Mitigation" means the process of minimizing or compensating for adverse environmental impact(s) of a proposal on a critical area.

5. "Mobile home" means a structure that is transportable in one or more sections, built on a permanent chassis, and designed to be used with or without a permanent foundation when connected to the required utilities. A mobile home is also included within the definition of manufactured homes, however, the standards relating to mobile homes shall take precedence over the standards relating to manufactured homes where such standards are more stringent.

6. "Moderate-intensity land use" includes, but is not limited to, residential at a density of up to one dwelling unit per acre, moderate intensity open space (parks), agriculture (moderate intensity land uses such as orchards and hay fields).

7. "Monitoring" means the collection of data by various methods for the purpose of understanding natural systems and features, evaluating the impact of development proposals on such systems, and/or assessing the performance of mitigation measures imposed as conditions of development.

N. "N" Definitions.

1. "Native growth protection easement (NGPE)" means an easement granted to the city of North Bend for the protection of native vegetation within a critical area or its associated buffer.

2. "Native vegetation" means plant species that are indigenous to the region.

3. "New construction" means structures for which the start of construction commenced on or after the effective date of the ordinance codified in this chapter.

O. "O" Definitions.

1. "Ordinary high water mark" means, on all lakes, streams, and tidal waters, the biological vegetation mark that indicates the "ordinary" high water level (WAC 173-22-030(11)).

P. "P" Definitions.

1. "Practical alternative" means an alternative that is available and capable of being carried out after taking into consideration cost, existing technology, and logistics in light of overall project purposes, and having less impact to critical areas.

2. "Priority habitat" means habitat types or elements with unique or significant value to one or more species as classified by the State Department of Fish and Wildlife.

3. "Public agency" means every city, county, state, or federal office, every officer, every institution, whether educational, correctional, or other, and every department, division, board, and commission that provides services or recommendations to the public or other such agencies.

4. "Public utility" means a public service corporation performing some public service subject to special governmental regulations, or a governmental agency performing similar public services, either of which are paid for directly by the recipients thereof. Such services shall include, but are not limited to, water supply, electric power, gas, and transportation for persons and freight.

Q. "Q" Definitions.

1. "Qualified professional" means a person with experience and training in the pertinent scientific discipline, and who is a qualified expert with expertise appropriate for the relevant critical area subject in accordance with WAC 365-195-905(4). A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering, environmental sciences, fisheries, geomorphology, or related field, and two years of related work experience.

a. A qualified professional for habitats or wetlands must have a degree in wildlife or wetland biology or a related environmental science and professional experience in Washington State related to the subject.

b. A qualified professional for a geological hazard must be a professional engineer or geologist, licensed in the state of Washington.

c. A qualified professional for critical aquifer recharge areas must be a hydrologist, geologist, engineer, or other scientist with experience in preparing hydrological assessments, with recent experience in Washington State.

d. A qualified professional with flood and CMZ expertise must be a hydrologist.

R. "R" Definitions.

1. "Reasonable use" means a legal concept articulated by federal and state courts in regulatory taking cases.

2. "Recreational vehicle" means a vehicle that is built on a single chassis; and 400 square feet or less when measured at the largest horizontal projection; and designed to be self-propelled or permanently towable by an automobile or light duty truck; and designed primarily for use as temporary living quarters for recreational, camping, travel, or seasonal use, not as a permanent dwelling.

3. "Riparian habitat" means areas adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems that mutually influence each other.

S. "S" Definitions.

1. "Salmonid" means a member of the fish family Salmonidae. In King County, chinook, coho, chum, sockeye, and pink salmon; cutthroat, brook, brown, rainbow, and steelhead trout; kokanee; and native char (bull trout and Dolly Varden).

2. "Section 404 Permit" means a permit issued by the Army Corp of Engineers for the placement of dredge or fill material waterward of the ordinary high water mark or clearing in waters of the United States, including wetlands, in accordance with 33 United States Code (USC) Section 1344.

3. "Seismic hazard areas" means areas that are subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, or soil liquefaction.

4. "Special flood hazard area (SFHA)" means an area subject to a base or 100-year flood; areas of special flood hazard are shown on the flood insurance rate maps as Zone A, AO, AE, AH.

5. "Species and habitats of local importance" means those species that may not be endangered, threatened, or critical from a state-wide perspective, but are of local concern due to their population status, sensitivity to habitat manipulation, or other educational, cultural, or historic attributes. These species may be priority habits, priority species, and those habitats and species identified in the critical areas code as having local importance (e.g., elk).

6. “Species, threatened and endangered” means those native species that are listed by the State Department of Fish and Wildlife pursuant to RCW 77.12.070 as threatened (WAC 232-12-011) or endangered (WAC 232-12-014), or that are listed as threatened or endangered under the federal Endangered Species Act (16 U.S.C. 1533).

7. “Start of construction” means and includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 days of the permit issuance date. For cumulative tracking, the permit may extend beyond the specified time frame to the time of permit completion. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation, or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling, nor does it include the installation of streets and/or walkways, nor does it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms, nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

8. “Steep slopes” means those slopes (excluding city-approved geotechnical engineered slopes) 40 percent or steeper within a vertical elevation change of at least 10 feet. A slope is defined by establishing its toe and top and is measured by averaging the inclination over at least 10 feet of vertical relief.

9. “Structure” means a walled and roofed building including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

10. “Stream” means any portion of a watercourse, either perennial or intermittent, where the surface water flow is sufficient to produce a defined channel or bed. Streams also include natural watercourses modified by humans. Streams do not include irrigation ditches, canals, stormwater run-off facilities, or other entirely artificial watercourses.

11. “Substantial damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

12. “Substantial improvement” means any repair, reconstruction, rehabilitation, remodel, addition, or improvement of a building or structure, the cost of which exceeds 50 percent of the market value of the structure before the improvement or repair is started. This term includes structures that have incurred “substantial damage,” regardless of the actual repair work performed. The term excludes:

a. Any project for improvement of a structure to correct pre-cited existing violations of state or local health, sanitary, or safety code specification that have been previously identified by the local code enforcement or building official and are the minimum necessary to assure safe living conditions; and

b. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places; provided that the alteration will not preclude the structure's continued designation of a historic structure.

T. "T" Definitions.

1. "Topping" means the severing of main trunks or stems of vegetation at any place above 25 percent of the vegetation height.

2. "Trees" mean any living woody plant characterized by one main stem or trunk and many branches and having a diameter of four inches or more measured 24 inches above ground level.

U. "U" Definitions.

1. "Unavoidable" means adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved.

2. "Understory" means the vegetation layer of a forest that includes shrubs, herbs, grasses, and grass-like plants, and tree saplings having a diameter of four inches or less measured 24 inches above ground level, but excludes trees as defined in this section.

3. "Utility" means a service and/or facility that produces, transmits, carries, stores, processes, or disposes of electrical power, gas, potable water, stormwater, communications (including, but not limited to, telephone and cable), sewage, oil, and the like.

V. "V" Definitions.

1. "Variance" means a grant of relief from the requirements of this chapter that permits construction in a manner that would otherwise be prohibited by this chapter.

2. "Vegetation" means plant life growing below, at, and above the soil surface.

3. "Vegetation alteration" means any clearing, grading, cutting, topping, limbing, or pruning of vegetation.

W. "W" Definitions.

1. "Water dependent activities" means a use or portion of a use that cannot exist in a location that is not adjacent to the water, but is dependent on the water by reason

of the intrinsic nature of its operations. A use that can be carried out only on, in, or adjacent to water. Examples of water dependent uses include fishing, marinas, moorage, and boat launching facilities; aquaculture; surface water intake; and sanitary sewer and storm drain outfalls.

2. "Water resources inventory area (WRIA)" means one of 62 watersheds in the state of Washington, each composed of the drainage areas of a stream or streams, as established in Chapter 173-500 WAC as it existed on January 1, 1997.

3. "Water typing system" means the system used to classify freshwater surface water systems. Current regulations establish "interim" water typing (1 through 5) until fish habitat water type maps are available for permanent water typing (S, F, Np, Ns) (WAC 222-16-031).

4. "Wetland" means as defined by Chapter 36.70 RCW or as hereafter amended, those areas that are inundated or saturated by ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

a. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway.

b. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate conversion of wetlands.

5. Wetlands Rating System. Wetlands shall be rated according to the Washington State Wetland Rating System for Western Washington, Department of Ecology, Publication No. 04-06-025, or as revised.

X. "X" Definitions.

Reserved.

Y. "Y" Definitions.

Reserved.

Z. "Z" Definitions.

Reserved.

Section 4. NBMC 14.08.040 (Development provisions), Amended: North Bend Municipal Code Section 14.08.040 (Development provisions) is hereby amended to read as follows:

A. Applicability – No degradation. The requirements provided in this section supplement those identified in Chapter 14.05 NBMC. Activities may only be permitted in a stream or stream buffer if the applicant can show that the proposed activity will not degrade the functions and values of the stream, stream buffer, or other critical area.

B. Inner buffer development provisions – Type S and F streams. Except as provided in this subsection (B), all activities and uses shall be prohibited in inner buffers of Type S and F streams. Allowable activities and uses are:

1. Stream Crossings. Stream crossings shall be minimized, but when necessary they shall conform to the following standards as well as other applicable laws (see the State Department of Fish and Wildlife, or the State Department of Ecology).

a. The stream crossing is the only reasonable alternative that has the least impact;

b. It has been shown in the critical area report that the proposed crossing will not decrease the stream and associated buffer functions and values;

c. The stream crossing shall use bridges instead of pipe or box culverts unless it can be demonstrated that a pipe or box culvert would result in equal or less ecological impacts;

d. All stream crossings using pipe culverts shall use super span or oversized culverts with appropriate fish enhancement measures. Culverts shall not obstruct fish passage;

e. Stream crossings shall be designed according to the Washington Department of Fish and Wildlife Fish Passage Design at Road Culverts, 1999, and the National Marine Fisheries Service Guidelines for Salmonid Passage at Stream Crossings, 2000;

f. All stream crossings shall be constructed during the summer low flow period between June 15th and September 15th or as specified by the State Department of Fish and Wildlife in the Hydraulic Project Approval;

g. Stream crossings shall not occur through salmonid spawning areas unless no other feasible crossing site exists;

h. Bridge piers or abutments shall not be placed in either the floodway or between the ordinary high water marks unless no other feasible alternative placement exists;

i. The natural drainage pattern and discharges of the upstream drainage basin, up to the runoff event having an exceedance probability of 0.01, shall not be altered or diminished by a stream crossing;

j. Stream crossings shall minimize interruption of downstream movement of wood and gravel;

k. Stream crossings shall be designed to facilitate routine maintenance of culverts and bridges; and

l. Stream crossings shall be minimized by serving multiple properties when-ever possible.

2. Trails. The criteria for alignment, construction, and maintenance of trails within wetlands and their buffers shall apply to trails within stream buffers. Fishing platforms or docks shall be included in the list of permitted trail improvements for streams, subject to shoreline regulations.

3. Utilities. The criteria for alignment, construction, and maintenance within the wetland buffers shall apply to utility corridors within stream buffers. In addition, corridors shall not be aligned parallel with any stream channel unless the corridor is outside the buffer, and crossings shall be minimized. Installation shall be accomplished by boring beneath the scour depth and hyporheic zone of the water body where feasible. Crossings shall be contained within the existing footprint of an existing or new road or utility crossing where possible. Otherwise, crossings shall be at an angle greater than 60 degrees to the centerline of the channel. The criteria for stream crossing shall also apply.

4. Stormwater conveyance facilities; provided, that they are only located in the buffer when no practicable alternative exists outside the buffer. Stormwater facilities shall be planted with native plantings where feasible to provide habitat, and/or less intrusive facilities should be used.

5. Floodway-Dependent Structures. Floodway-dependent structures or installations may be permitted within streams or their buffers if allowed or approved by other ordinances or other agencies with jurisdiction. See Chapter 14.12 NBMC for more information on allowed uses and activities within flood hazard areas.

6. Septic Systems. New septic systems are prohibited in the inner stream buffers.

7. Stream bank stabilization shall only be allowed when it is shown, through a stream bank stability assessment conducted by a qualified fluvial geomorphologist or hydraulic engineer, that such stabilization is required for public safety reasons, that no other less intrusive actions are possible, and that the stabilization will not degrade instream or downstream channel stability. Stream bank stabilization shall utilize bioengineering or soft armoring techniques unless otherwise demonstrated. Stream bank stabilization shall conform to the Integrated Streambank Protection Guidelines developed by the Washington State Department of Fish and Wildlife, 2002, or as revised. Stabilization measures must demonstrate the following:

a. Natural shoreline processes will be maintained. The project will not result in increased erosion or alterations to, or loss of, shoreline substrate within one-quarter mile of the project area;

b. The stabilization measures will not degrade fish or wildlife habitat conservation areas or associated wetlands; and

c. Adequate mitigation measures ensure that there is no net loss of the functions or values of riparian habitat.

8. Maintenance, repair, or replacement of lawfully established existing bank stabilization is allowed, provided it does not increase the height or linear amount of bank and does not expand waterward or into aquatic habitat landward.

9. Activities and uses allowed under Chapter 14.05 NBMC.

Section 5. NBMC 14.12 (Floodplain Management), Amended: North Bend Municipal Code Chapter 14.12 (Floodplain Management) is hereby amended to read as follows:

Chapter 14.12
FLOODPLAIN MANAGEMENT[1]

Sections:

14.12.010 Applicability.

This chapter shall apply to all areas of special flood hazards (also referred to as "special flood hazard areas" or "SFHA") within the city. Special flood hazard areas shall have the meaning ascribed in NBMC 14.05.200(S)(4), which areas shall be determined by consideration of the following:

A. Special flood hazard areas identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for King County, Washington, and Incorporated Areas" dated April 19, 2005, and any revisions thereto, with an accompanying Flood Insurance Rate Map (FIRM), and any revisions thereto, which are hereby adopted by reference as though fully set forth. The Flood Insurance Study (FIS) and the FIRM are on file at North Bend City Hall. The best available information for flood hazard area identification as outlined in NBMC 14.12.010(B) shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under NBMC 14.12.010(B); and

B. When base flood elevation data has not been provided by the FIS or FIRM, the city shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from federal, state, county, or other valid sources.

C. In the event of a conflict, the more restrictive provision shall apply.

14.12.020 Severability.

If any provision of this chapter is held to be invalid or unconstitutional by any court of competent jurisdiction, such holding shall not affect the validity of the remaining provisions of this chapter.

14.12.030 Floodplain development permit.

A. A floodplain development permit shall be obtained before new construction, substantial improvement, or development begins within any SFHA. The permit shall be for all structures, including mobile and manufactured homes or non-licensed recreational vehicles on-site for more than 180 days, as set forth in NBMC 14.12.140 and -.150, and for all other development including fill and other activities as defined in NBMC 14.05.200.

B. The fee and/or review cost for a floodplain development permit shall be as set forth in the City's Taxes Rates and Fees Schedule, as now adopted or as may be amended from time to time.

C. The fee and/or review cost for a floodplain development permit shall be waived by the City when the permit is for a structure under 200 square feet in size.

D. The fee and/or review cost for a floodplain development permit shall be waived by the City when the permit is associated with a building permit for any of the following improvements:

i. Electrical repairs;
ii. Furnace repairs or replacements;
iii. Water heater or boiler repairs or replacements;
iv. Air conditioner repairs or replacements;
v. Re-roofs;
vi. Re-siding;
vii. Insulation or simple weatherization or energy efficiency upgrades;
viii. Roof-mounted or existing structure mounted solar collectors;
ix. Window and door replacements; or
x. Renovation or remodel projects that cost less than $750;

Provided, that waiver under this subsection (D) shall not apply if the project includes other improvements that are not listed above, increases the structure's floor area or footprint, causes a floodplain encroachment, or constitutes a substantial improvement under NBMC 14.12.170.

The cost of improvements that qualify for a waiver under this subsection (D) shall not be included in the cumulative calculation required by NBMC 14.12.170, unless the improvements are part of a substantial damage calculation or estimate.

E. Permit application. Application for a floodplain development permit shall be made on forms furnished by the director. Required application materials may include:

1. Plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question, existing or proposed structures, fill, storage of materials, drainage facilities, and other information as identified on the application information sheet. These documents shall be maintained by the city for inspection of all records pertaining to the provisions of these critical areas regulations.

2. A critical areas report, which, when required, shall include:

a. The base flood elevation in relation to the lowest floor (including basement) of all structures located in the AE zone or within the AO zone. Identify the highest adjacent natural grade next to the building prior to construction;

b. Proposed floodproofing elevation in relation to the base flood elevation or highest adjacent natural grade next to the building prior to construction;

c. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in NBMC 14.12.130;

d. A description of the extent to which a watercourse will be altered or relocated as a result of a proposed development;

e. The accuracy of said elevation as proposed and as built shall be certified by a licensed professional engineer and/or a professional land surveyor; and

f. All development permits for the site must be reviewed to ensure all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required.

14.12.040 Review of building permits.

Where base flood elevation data is not available either through the Flood Insurance Study, FIRM, or from another authoritative source identified within NBMC 14.12.010(B), applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding; provided, that the elevation of the lowest floor (including basement) shall be at least two feet above the highest adjacent grade in those zones. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available.

14.12.050 Information to be obtained and maintained.

A. Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or other source in accordance with NBMC 14.12.010, the applicant shall obtain and record the actual (as-built) elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

B. For all new or substantially improved floodproofed nonresidential structures where base flood elevation data is provided through the FIS, FIRM, or other source in accordance with NBMC 14.12.010:

1. The applicant shall obtain and record the elevation (in relation to mean sea level) to which the structure was floodproofed; and

2. The City shall maintain the floodproofing certifications required in NBMC 14.12.130.

C. The City shall maintain for public inspection all records pertaining to the provision of this chapter.

14.12.060 Alteration of watercourses.
Adjacent communities and the Department of Ecology must be notified prior to any alteration or relocation of a watercourse, and evidence of such notification must be submitted to the Federal Insurance Administration.

14.12.070 Performance standards – Flood hazard areas.
The following standards apply to development proposals and alterations on sites within special flood hazard areas:

A. A development proposal shall not increase the base flood elevation unless revisions to the FIRM are approved by FEMA in accordance with 44 CFR 70, and appropriate legal arrangements have been made and documents filed prior to issuance of a construction permit.

B. The following circumstances are presumed to produce no increase in base flood elevation and shall not require special studies to establish this fact:

1. Reconstruction or remodeling of existing structures in the floodway where the structure's footprint is not increased;

2. Development of new residential structures outside the FEMA floodway on lots in existence before November 17, 1998;

3. Substantial improvements to existing residential structures in the floodplain but outside the FEMA floodway;

4. New development or substantial improvement in the area identified in the downtown commercial zoning district which is within the AO-1, AO-2, AO-3 or AE (outside the floodway) flood zone; provided, that in the AE flood zone the difference between the highest adjacent grade of the site and the base flood elevation as measured on the Flood Insurance Rate Map is no greater than 2 feet; and/or

5. Minor accessory structures exempt from building permits under the International Building Code.

C. The cumulative effect of any proposed development, where combined with all other existing and anticipated development on the site, shall not reduce the effective base flood storage volume of the floodplain. Except as exempted in NBMC 14.12.070(B), grading or other activity that would reduce the effective storage volume shall be mitigated by creating compensatory storage on-site, or off-site if legal arrangements can be made, to assure that the effective compensatory storage volume will be preserved over time; provided, however, that no increased upstream or downstream flood hazard shall be created by any fill authorized in the floodplain by this chapter or other applicable chapters.

D. If a lot has buildable site out of the special flood hazard area, all new structures shall be located there, when feasible. If the lot is fully in the floodplain, structures must be located to have the least impact on riparian habitat and listed species.

E. If the proposed project will create new impervious surfaces so that more than 10 percent of the portion of the lot in the regulatory floodplain is covered by impervious surface, the applicant shall demonstrate that there will be no net increase in the rate and volume of the stormwater surface runoff that leaves the site or that the adverse impact is mitigated per the approved habitat mitigation assessment.

F. When fill is proposed to achieve elevated construction, a report by a registered professional engineer is required demonstrating that the proposal will not increase the base flood elevation.

G. If grading or other activity will displace any effective flood storage volume, compensatory storage shall be created on-site, or off-site if legal arrangements can be made, to assure that the effective compensatory storage volume will be preserved over time, in equivalent volume, at equivalent elevations to that being displaced. Compensatory storage areas must be hydraulically connected to the source of flooding. Alternatively, if feasible, the applicant may provide an increase in side channel habitat as mitigation for floodway alterations.

H. Approved alterations shall not block side channel habitats.

I. An analysis of bioengineering and/or vegetation enhancements will be required when existing levees or dikes are proposed to be repaired or renovated as specified in King County's Guidelines for Bank Stabilization.

14.12.080 Construction materials and methods.
Construction materials and methods for residential and nonresidential structures shall meet the following criteria:

A. All construction elevated by pilings must be designed and certified by a professional structural engineer registered in the state of Washington and approved by the city building official.

B. All new or substantially improved buildings and structures shall be constructed with materials and utility equipment resistant to flood damage, using methods and products that minimize flood damage; and

C. Electrical, mechanical, plumbing, heating, ventilation and air conditioning and other service facilities shall be elevated or floodproofed to the flood protection elevation so as to prevent water from entering or accumulating within the components during conditions of flooding.

D. All new construction shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

14.12.090 Utilities.
Utilities and on-site sewage facilities shall meet the following criteria:

A. All new and replacement utilities including sewage treatment facilities shall be floodproofed to the flood protection elevation;

B. New on-site sewage disposal systems shall be located outside the limits of the floodway and may be installed in the floodplain if no feasible alternative site is available. On-site sewage disposal systems that are located within the flood hazard areas must be sited to avoid impairment of the system during flooding and to avoid contamination from the system during flooding;

C. Sewage and manure waste storage facilities, if allowed, shall be floodproofed to the flood protection elevation;

D. Buried utility transmission lines transporting hazardous substances (as defined by the Washington State Hazardous Waste Management Act in RCW 70.105.010) shall be buried a minimum of four feet beneath the maximum depth of scour of the base flood for the entire width of the floodway and shall achieve sufficient negative buoyancy so that any potential for flotation or upward migration is eliminated; and

E. Aboveground utility transmission lines, not including electrical transmission lines, shall only be allowed in the floodway for the transportation of nonhazardous materials, as defined by the Washington State Department of Ecology, where a bridge or other structure is capable of transporting the line.

F. Water wells shall be located on high ground that is not in the floodway.

14.12.100 Subdivision and development proposals.

Subdivisions, short subdivisions, master site plans, contract rezones, site plan/design review, planned residential developments, and binding site plans shall follow these requirements:

A. New buildable lots shall contain 5,000 square feet or more of buildable land outside the floodway;

B. Locate and construct all utilities and their facilities in a manner that minimizes flood damage;

C. Provide adequate drainage to reduce exposure to flood damage;

D. Base flood data and flood hazard notes shall be shown on the face of the recorded plat; this may include the floodwater depth, required flood elevations, and the boundary of the base flood and floodway as deemed appropriated by the city; and

E. Where base flood elevation data has not been provided or is not available from another authorized source, it shall be generated for subdivision proposals and other proposed developments that contain at least 50 lots or five acres (whichever is less);

F. The following note shall appear on the face of the recorded documents and shall be recorded on the title of records for all affected lots:

Note: Lots and structures located within special flood hazard areas may be inaccessible to emergency vehicles during flood events. Residents and property owners should take appropriate advance precautions to provide access.

14.12.110 Residential construction.

New residential construction and substantial improvements within the SFHA shall meet the following criteria:

A. The lowest floor, including basement, shall be elevated two feet or more above base flood elevation; and

B. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited. The area and rooms below the lowest floor shall be designated to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must meet or exceed the following minimum criteria:

1. A minimum of two openings shall be provided on two different walls having a total new area of not less than one square inch for every square foot of enclosed area subject to flooding;

2. The bottom of all openings shall be no higher than one foot above grade; and

3. Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.

C. Portions of the building below the base flood elevation must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace used to elevate the building, but also any joists, insulation, or other materials that extend below the base flood elevation.

D. The elevation of the interior crawlspace grade must be at or above the lowest elevation of the exterior grade; provided, that below-grade crawlspace foundations may be allowed when all of the following conditions are met:

1. The interior grade of the crawlspace below the base flood elevation is no more than 2 feet below the lowest adjacent exterior grade; and

2. The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall, does not exceed 4 feet at any point; and

3. The crawlspace contains an adequate drainage system that removes floodwaters from the interior of the crawlspace, such as natural drainage through

porous, well-drained soils, and/or constructed drainage systems such as perforated pipes, drainage tiles or gravel or crushed stone drainage by gravity or mechanical means; and

4. Any building utility systems within the crawlspace are elevated to the flood protection elevation or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions. In particular, all ductwork is elevated above the design flood elevation or sealed from floodwaters; and

5. The velocity of floodwaters at the site does not exceed five (5) feet per second for any crawlspace; and

6. All other minimum criteria set forth in this Section 14.12.110 are satisfied.

14.12.120 Accessory structures.
This provision applies to accessory structures that are used for parking or storage only, such as garages or small storage sheds. The following standards shall apply in the SFHA:

A. Accessory structures shall be designed to have low flood damage potential;

B. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;

C. Accessory structures shall be firmly anchored to prevent flotation that may result in damage to other structures;

D. Service facilities such as electrical equipment shall be floodproofed or elevated above the base flood elevation;

E. Floodway encroachment standards must be met;

F. The portions of accessory structures located below the base flood elevation must be constructed of flood-resistant materials; and

G. Accessory structures must be designed to allow for the automatic entry of flood waters as described in NBMC 14.12.110(B), unless the floor is elevated above the base flood elevation.
H.

14.12.130 Nonresidential construction.
New construction and substantial improvements of any existing commercial, industrial, or other nonresidential structure shall either:

A. Elevate the lowest floor, including the basement, a minimum of two feet or more above base flood elevation and meet the same standards for space below the lowest floor as described in NBMC 14.12.110; or

B. Floodproof the structure to the same elevation. If the structure is floodproofed, the following criteria are required:

1. The floodproofing must be certified by a professional engineer or architect registered in the state of Washington stating that the floodproofing methods are adequate to withstand the flood-depths, pressures, velocities, impacts, uplift forces, and other factors associated with the base flood. The certification shall be provided to the official as set forth in NBMC 14.12.050.

2. Approved building permits for floodproofed nonresidential buildings shall contain a statement to notify applicants that flood insurance premiums will be based upon rates that are one foot below the floodproofed level.

14.12.140 Mobile and manufactured homes.
For all mobile and manufactured homes, all standards for flood hazard protection for residential construction shall apply. All mobile and manufactured homes must be securely anchored to an adequately anchored foundation system to resist floatation, collapse and lateral movement. For existing mobile and manufactured homes where the value of the repair or reconstruction of the utilities and pad equals or exceeds 50 percent of the value of utilities and pad before the repair or reconstruction has commenced, all standards for flood hazard protection applicable for residential construction shall apply.

14.12.150 Recreational vehicles.
Recreational vehicles placed on sites in the SFHA are required to either:

A. Be on the site for fewer than 180 consecutive days; or

B. Be fully licensed and ready for highway use, on wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or

C. Meet the manufactured home elevation and anchoring requirements.

14.12.160 Shallow flooding areas.
Shallow flooding zones appear on FIRMs as AO zones with depth designations. The base flood depths in these zones range from one to three feet above ground where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In these areas, the following provisions apply:

A. Residential structures. New construction and substantial improvements of residential structures within AO zones shall have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, two feet or more above the depth number specified on the FIRM (at least two feet if no depth number is specified).

B. Nonresidential structures. New construction and substantial improvements of nonresidential structures that require a building permit within AO zones shall either:

1. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, one foot or more above the depth number specified on the FIRM (at least two feet if no depth number is specified).; or

2. Together with attendant utility and sanitary facilities, be completely floodproofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as defined under qualified professional. Where hazardous velocities were noted on the FIRM, consideration shall be given to mitigating the effects of these velocities through proper construction techniques and methods; or

C. Drainage for residential and nonresidential structures. Adequate drainage paths around structures on slopes are required to guide floodwaters around and away from proposed structures.

14.12.170 Substantial improvement.

A project is considered a substantial improvement when the cost of any repairs, reconstruction, rehabilitation, addition, or improvement of a building or other structure equals or exceeds 50% of the market value of the structure a) before the improvement or repair is started; or b) if the structure has been damaged and is being restored, before the damage occurred. Substantial improvements are calculated on a cumulative basis, beginning with improvements commenced 5 years prior to the date of the current building permit application. When the total cost of all improvements within the 5-year period equals or exceeds 50% of the market value of the structure, the project is considered a substantial improvement and the structure must be brought into compliance with this chapter. The cumulative calculation provision does not include tenant improvements of commercial structures, exclusions listed in NBMC 14.05.200(S)(12), or improvements that qualify for waiver under NBMC 14.12.030(D).

14.12.180 Additions.

A. Except as provided in subsection (B) of this section, additions to existing buildings or structures must comply with all floodplain regulations as set forth in this Chapter 14.12 NBMC.

B. Additions that meet the following criteria shall not be required to elevate, but must be flood resistant to a minimum of 2 feet above the base flood elevation:

1. Expansion of existing building or structure does not exceed 500 square feet; and

2. Expansion of existing building or structure does not increase the building footprint by more than 25 percent; and

3. The addition shares a common wall (one full side) with the primary structure; and

4. The addition does not constitute a substantial improvement under NBMC 14.12.170.

14.12.190 Critical facilities.

Critical facilities include, but are not limited to, schools, hospitals, police, fire and emergency response installations, nursing homes, wastewater treatment plants, potable water and sanitary sewer system components, and hazardous materials production. Construction of new critical facilities shall only be allowed within the floodplain when no reasonable alternative site is available. Critical facilities constructed within the floodplain shall have the lowest floor elevated to three or more feet above the level of the base flood elevation, except that factory assembled portable school classrooms shall have the lowest floor elevated to two feet or more above the base flood elevation. Floodproofing and sealing measures must be taken to ensure toxic or hazardous substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the 100-year frequency flood shall be provided to all critical facilities to the extent possible.

14.12.200 Floodways.

Floodways are special flood hazard areas as determined in NBMC 14.12.010 due to the velocity of floodwaters that can actually carry debris and increase erosion potential. The following provisions apply in all designated floodways within the city:

A. Construction of new residential, commercial or industrial structures is prohibited within the floodway.

B. Encroachments, including fill, new construction, substantial improvements or other developments, unless certification by a registered professional engineer is provided demonstrating, through hydrologic and hydraulic analyses performed in accordance with standard engineering practice, that the proposed encroachment would not result in any increase in flood levels during the occurrence of the base flood discharge.

C. New construction and substantial improvement of residential structures is prohibited within the floodway, except for repairs, reconstruction, or improvements to a structure which do not increase the ground floor area.

D. Any new construction and substantial improvement permitted under subsection (B) or (C) of this section shall comply with all other applicable flood hazard reduction standards of this chapter.

14.12.205 Hazardous materials

The storage or processing of chemicals, petroleum products or by-products, fertilizers, insecticides, pesticides, lime, cement, or other materials that, when inundated, will constitute a hazard to life, health and safety, or adversely affect the

quality of surface waters is prohibited at or below three feet above the base flood elevation within the SFHA.

14.12.210 Floodplain habitat assessment.

A. Assessment required. A floodplain habitat assessment and mitigation plan shall be required for all new construction or substantial improvement within the Special Flood Hazard Area unless exempted under section B below, or unless the CED director makes and documents a determination of no adverse effect on any species listed under the Endangered Species Act. If required, the habitat assessment and mitigation plan shall be prepared at the applicant's sole expense by a qualified consultant in accordance with the requirements of the Floodplain Habitat Assessment and Mitigation Regional Guidance 2013 prepared by FEMA Region X, or any successor guidance document approved by FEMA for habitat assessment and mitigation. The city's actual costs of review of applicant's habitat assessment and mitigation plan shall be paid by the applicant per the adopted taxes, rates and fee schedule.

B. Exemptions. Any of the following activities do not require the preparation of a floodplain habitat assessment or consideration of associated mitigation measures, even if they may require a floodplain permit:

1. Nondevelopment activities.
2. Development activities that are fully contained within the footprint of an existing building and do not involve any site clearing or grading.
3. Critical area habitat enhancement and restoration projects that are exempt from Critical Areas review pursuant to NBMC 14.05.085(A)(2).

14.12.220 Critical area report.

The director may waive a critical area report when existing mapping and flood insurance study is determined to be adequate. When a critical area report is required the following provisions shall apply:

A. A critical area report for flood hazard areas shall be prepared by an engineer or hydrogeologist, licensed in the state of Washington, with expertise analyzing geologic, hydrogeologic and surface and ground water flow systems, and who has experience preparing reports for the relevant type of hazard.

B. In addition to the requirements of Chapter 14.05 NBMC, critical area reports required for special flood hazard areas shall include the following information:

1. On the site map:

a. The dimensioned location of all proposed development in the floodplain;

b. Identification of all proposed structures and grading within the floodplain.

2. In the report:

a. Identify how the boundaries of the floodways and floodplain were determined; and

b. Establish the elevation of the lowest floor of all new or substantially improved structures proposed in the existing floodplain, utilizing the North American Vertical Datum of 1988.

Section 6. Severability: Should any section, paragraph, sentence, clause or phrase of this ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this ordinance be pre-empted by state or federal law or regulation, such decision or pre-emption shall not affect the validity of the remaining portions of this ordinance or its application to other persons or circumstances.

Section 7. Effective Date: This ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

ADOPTED BY THE CITY COUNCIL OF THE CITY OF NORTH BEND, WASHINGTON, AT A REGULAR MEETING THEREOF, THIS 15TH DAY OF NOVEMBER, 2016.

CITY OF NORTH BEND:

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Kenneth G. Hearing, Mayor

APPROVED AS TO FORM:

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Michael R. Kenyon, City Attorney

ATTEST/AUTHENTICATED:

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Susie Oppedal, City Clerk

Published: November 23, 2016
Effective: November 28, 2016